

## AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): A system for driving a liquid crystal display (LCD) having a plurality of display cells arranged in a plurality of rows and a plurality of columns, comprising:

- 5 a plurality of row conductors;  
a row-driving means for selectively activating the row conductors;  
a partitioning means for dividing each plurality of cells associated with a unique LCD column into a plurality of partitions aligned in the column direction, the respective partitions of said unique LCD column being associated with mutually exclusive groups of rows such that display  
10 cells in a given partition associated with said unique LCD column are associated with a first group of said plurality of rows, and display cells in a different partition associated with said unique LCD column are associated with a different group of said plurality of row conductors;  
a plurality of column conductors arranged orthogonal to the row conductors, wherein each column conductor is associated with a unique one of the plurality of partitions;  
15 a column-driving means for selectively activating the column conductors; and  
a controlling means for operationally controlling the row and column driving means.

B1  
Cmt  
Claim 2 (original): The system according to claim 1, wherein the number of row conductors is equal to the number of LCD display rows.

20 Claim 3 (original): The system according to claim 2, wherein the row-driving means comprises a plurality of row drivers, wherein each row driver is connectively coupled to a plurality of row conductors.

25 Claim 4 (original): The system according to claim 3, wherein each row driver is connectively coupled to at least two row conductors.

Claim 5 (original): The system according to claim 1, wherein the plurality of conductors associated with the plurality of partitions of each column of the LCD are adjacent and parallel to  
30 one another, each one of the plurality of conductors terminating at a same edge of the LCD.

Claim 6 (original): The system according to claim 1, wherein each column has two partitions.

Claim 7 (original): The system according to claim 6, wherein the column conductors associated  
5 with the two partitions terminate at opposing edges of the LCD, each conductor traversing one half  
of the column of the LCD.

Claim 8 (currently amended): A method for driving a liquid crystal display (LCD) having a  
plurality of cells arranged in rows and columns, comprising the steps of:

- 10 a) loading data into a plurality of column drivers;
- b) activating a first row-driving means for a first one of a plurality of said rows, said first  
one being a member of a first group of rows;
- c) activating a first one of a plurality of column-driving means to display at least one  
cell, from a first partition of a first column partition that is located at an intersection with the  
15 activated row;
- d) activating a different one of the plurality of column-driving means to display at least  
one cell of a first partition of another column partition that is located at an intersection with the  
activated row;
- e) repeating step d) for each remaining partition having a respective intersection with the  
20 first row;
- f) deactivating the row and column driving means; ~~and~~
- g) repeating steps a) through f) for ~~a~~ another one of the ~~plurality~~ first group of rows;
- h) repeating steps a) through f) for at least a second partition of said first column and a  
second partition of said another column, said second partitions being located at respective  
25 intersections with an activated row of a second group of rows containing none of the rows of said  
first group of rows.

Claim 9 (original): The method according to claim 8, wherein the data is loaded into the plurality  
of column drivers from a memory device.

Claim 10 (original): The method according to claim 8, wherein the row driving means is activated by turning on a switch which connectively couples a row conductor to a ground potential.

Claim 11 (original): The method according to claim 8, whereby activating the column driving means comprises the steps of:

- a) applying a current signal to a plurality of activated column drivers; and
- b) terminating the applied current signal at each column driver when a voltage across each LCD cell rises to a predetermined magnitude.

Claim 12 (currently amended): A display device having a multiplicity of display cells arranged in a matrix having a first plurality  $r$  of rows extending in a row direction and a second plurality  $c$  of columns extending in a column direction,

each of said columns being partitioned in the column direction into a number  $n$  of partitions, where  $n > 1$ , the respective partitions of each respective column being associated with mutually exclusive groups of rows such that display cells in a given partition associated with a given column are associated with a first group of said plurality of rows, and display cells in a different partition associated with said given column are associated with a different group of said plurality of rows, and

the device comprises:

a third plurality  $sc$  of column conductors, where  $sc = c \times n$ , each column conductor being associated with the display cells of a respective one of said partitions,

a plurality of row conductors,

row-driving means for selectively activating the row conductors,

column-driving means for selectively activating the column conductors, and

controlling means for operationally controlling the row-driving means and the column-driving means.

Claim 13 (previously added): The display device of claim 12, wherein the respective partitions of the columns are aligned in the row direction.

Claim 14 (previously added): The display device of claim 13, wherein the number of row conductors is equal to the number of rows.

Claim 15 (previously added): The display device of claim 13, wherein said row-driving means  
5 comprises a plurality of row drivers, each row driver is connectively coupled to a respective plurality of row conductors associated with  $n$  rows of cells, including one cell in each of the  $n$  partitions of each column, whereby the number of row drivers is  $r/n$ .

Claim 16 (previously added): The display device of claim 13, wherein each partition is divided  
10 into groups of at least one cell per group, and within each column the groups forming the different partitions are interleaved.

*B1 added*  
Claim 17 (previously added): The display device of claim 16, wherein said row-driving means  
15 comprises a plurality of row drivers, each row driver is connectively coupled to a respective plurality of  $n$  row conductors associated with  $n$  rows of cells, a given plurality of the  $n$  rows of cells including one cell in each of the  $n$  partitions of each column, whereby the number of row drivers is  $r/n$ .

Claim 18 (previously added): The display device of claim 13, wherein the respective cells of a  
20 partition are contiguous.

Claim 19 (previously added): The display device of claim 18, wherein said row-driving means  
comprises a plurality of row drivers, each row driver is connectively coupled to a respective  
plurality of  $n$  row conductors associated with  $n$  rows of cells, a given plurality of the  $n$  rows of cells  
25 including one cell in each of the  $n$  partitions of each column, whereby the number of row drivers is  $r/n$ .

Claim 20 (previously added): The display device of claim 18, wherein column conductors  
associated with a partition which is adjacent an edge of the display terminate at the respective edge.

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